ANNUAL REPORT

OF THE

Sanitary Condition

OF THE

HOXNE RURAL DISTRICT,

For the Year ending December 31st, 1904,

BY

F. C. JAMES, M.B., D.P.H., &c.,

Medical Officer of Health.

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To the HOXNE RURAL DISTRICT COUNCIL.

Mr. Chairman and Gentlemen,

In this my First Annual Report to your Council, the figures and statistics given refer to the whole year, from January 1st to December 31st, 1904, inclusive.

I have been able to obtain the necessary information for the whole period, and uniformity will be thus maintained, although I have been your Medical Officer of Health only from June to December inclusive.

In it all rates per 1,000 except the Infant Mortality rate, are based upon the enumerated population found at the census of 1901, viz., 10,220 for the whole district, which is made up of the two Sub-districts, Stradbroke with a population of 5,200, and Dennington with a population of 5,020.

The whole of the district is undulating and varies from about 100 to 200 ft. above ordinance datum, with the exception of a small strip of marshy land along the river Waveney.

The surface geological formation is mainly of the heaviest boulder clay with a few outcrops of gravel of small area.

There are 23 parishes in the district, the area of which (exclusive of area covered by water) is 52,764 acres.

The villages of these parishes are all small and for the most part scattered, so that there is nowhere any tendency to overcrowding of houses on the land.

The occupation of the population of the district is entirely agricultural, and there is only one small factory—(at Syleham).

The house accommodation is for the most part sufficient although cases of overcrowding occur from time to time and are dealt with as they occur. Supervision, as provided by law over the erection of new houses, is exercised by your Council. During the year one certificate has been issued under the Public Health Water Act for the occupation of a house at Fressingfield.

There are few sewers in the district for the conveyance of anything beyond surface water, and owing to the thinness of population on area any public system of sewage disposal is unnecessary.

Excrement is universally disposed of privately, each house or cottage being provided either with a privy or pail closet. the former, owing to the size of the container, are apt to become a nuisance, and where any nuisance arises in connection with these, it would be advisable to enforce the substitution of the pail system.

The water-closet system is seldom met with, and except in the case of better class houses is not to be recommended here. House refuse and excrement is finally disposed of privately on the land.

The water supply of the district is practically similar in all the parishes to that of the parish of Fressingfield, which I have dealt with in a special report this year, and which appears in the appendix to this Report.

Owing to the costliness of well-sinking in the district, and the frequently unsatisfactory nature of the water so obtained, this source of supply is impracticable in most cases : but the ponds from which the scattered farms and cottages obtain their water are certainly unsatisfactory in the majority of cases, and a better and more extended system of rain-water collection would, I think, meet the difficulty better than any other method. In my own house I have no other water supply, and collect the rain water from the roof in galvanized iron tanks. I have found that with ordinary care, and by employing a simple and cheap method of excluding the first roof washings from these tanks, sufficient water of an excellent quality for all purposes has been available during an exceptionally dry summer and autumn. Rain water collected in an underground tank which I have has not proved to be so satisfactory.

COMMON LODGING HOUSES.—There are none in the district.

SLAUGHTER HOUSES.—There is no register kept of these. Five exist in the district, which I have inspected and found satisfactory.

BAKEHOUSES.—There is no register kept. There are no underground bakehouses in the district. Five retail bakehouses exist, which I have inspected and found satisfactory.

DAIRIES, COWSHEDS, AND MILKSHOPS.—There are no regular milkshops in the district, milk being sold direct from farmhouses locally. No diseases have been traced to the milk supply.

FACTORIES.—I have inspected the factory at Syleham and found it satisfactory in every respect. There is only one floor above the ground. A very few hands work on this floor ; under the circumstances there does not appear to be any risk from fire.

FOODS AND DRUGS ACT.—There has been no need to take any action for infringement of this Act.

OFFENSIVE TRADES.—There is one knacker's yard at Dennington, which is more than 250 yards from the nearest dwelling house, and can not well be a nuisance. It is kept in a reasonably cleanly state.

NUISANCES.—It has not been found necessary to take any legal action for the abatement of nuisances. A systematic house to house inspection has been made throughout the district and the following defects have been remedied during the year :—

3 new privies erected.
11 new earth closets erected.
54 privies repaired.
17 foul drains cleaned out.
7 manure heaps removed.
Many ponds cleaned out.
2 pig styes removed.
1 house condemned.
1 house pulled down.
3 houses improved.
7 houses disinfected.
2 schools disinfected.

Closure of Schools.—The schools at Dennington, Saxtead, Stradbroke, and Monk Soham have been closed for periods varying from five to two weeks, on account of the prevalence of measles and whooping cough in these parishes. I have received many letters during the year from the correspondents and head masters of schools asking for closure of their schools on account of the bad attendance, due to measles, whooping cough and influenza. In the four cases above mentioned only have I considered it possible that closure of the schools could tend to stay the spread of the disease. In the other cases the vast majority of the pupils were already absent, suffering from the disease, before I was informed of it. There is no attempt to isolate the sick at home in these diseases, the parents rather try to get all their children infected at once, and to free those children from school who are immune to the disease but possibly infectious, generally means increased visiting in other parishes and increased facilities for the spread of the disease.

ZYMOTIC OR INFECTIOUS DISEASES.

Five deaths are certified as due to this class of disease, as compared with 2 in 1903 and 6 in 1902.

Measles caused 2 deaths in children, aged 2 and 1½ years respectively.

Whooping Cough caused 1 death, in a child under 1 year.

Diarrhœa caused two deaths, in children both under 1 year.

The Zymotic death rate for the whole district is 0·48 per 1,000, as compared with 0·19 in 1903.

Table showing the number of deaths from Zymotic diseases, and Zymotic death rate for the whole district since 1893.

Year.	No. of Deaths.	Population.	Rate per 1,000.
1893	9	11,281	0·79
1894	9	11,161	0·80
1895	1	11,080	0·09
1896	2	11,461	0·17
1897	4	11,461	0·34
1898	3	11,461	0·26
1899	5	11,461	0·46
1900	3	11,461	0·26
1901	13	10,220	1·27
1902	6	10,220	0·58
1903	2	10,220	0·19
1904	5	10,220	0·48

INFECTIOUS DISEASES (NOTIFICATION) ACT, 1899.

During the year I have received 14 notifications, as compared with 31 received in 1903, and 95 in 1902. There were 3 cases of enteric fever notified this year, against 6 last year; there was no fatal case. Four cases of diphtheria were notified, with no deaths, against no cases notified in 1903. Two cases of scarlet fever were notified, without a fatal result, compared with 13 cases notified in 1903.

Table showing the number of notifications received since 1892, and the diseases.

Year.	Scarlet Fever.	Peuperal Fever.	Erysipelas.	Enteric Fever.	Continued Fever.	Diphtheria.	Chicken-pox.	Total.
1893	75	2	14	4	1	7	0	103
1894	37	2	13	1	0	6	0	59
1895	3	4	10	4	2	8	0	31
1896	2	1	10	8	2	18	0	41
1897	6	1	12	2	1	17	0	39
1898								31
1899	18	0	4	0	0	18	0	40
1900	7	0	1	0	0	1	0	9
1901	2	1	7	0	0	12	0	22
1902	27	0	11	6	0	3	48	95*
1903	13	0	12	6	0	0	0	31
1904	2	0	5	3	0	4	0	14

* Chicken-pox was only notifiable during the year 1902.

Enteric Fever.—Three cases have been notified. The first case was notified from Mendham, on February 22nd, in a female aged 34. No origin could be found for this case, which was a very mild and atypical one.

The second case was notified on the same day, from Mendham, in a patient aged 19, male. The well from which this family got its drinking water was found to receive the drainage from a very large pig sty, all of the filth from which apparently ran into the well. The water was exceptionally clear and sparkling and had no smell.

Analysis showed it, however, to be more suitable as a fertilizer than as a source of drinking water. The well was closed. No connection could be traced between these two cases, and no further cases occurred in the neighbourhood.

The third case was notified from Dennington on September 8th, in a male aged 38. The pond from which this patient got his drinking water was exceptionally filthy, and I recommended that rain water tanks should be fitted to the house to provide a wholesome supply. This was ordered to be done by your Council. The work not having been carried out, the order was repeated in November, but up to the end of the year the order had not been complied with, and no steps had been taken to enforce the order.

No other cases have occurred in the district.

Scarlet Fever.—Two cases have been notified. The first case from Brundish, in a male aged 25, on March 8th. The origin of this case could not be traced. All necessary precautions against the spread of the disease were taken and no further case occurred. The second case was notified on June 20th from Mendham, in a female aged 11. No origin could be found for the case, and although occurring in a large family of children, no further case developed.

Diphtheria.—Four cases have been notified, all from Hoxne. The first case was notified on January 25th, in a male aged 13. It was impossible to find where the patient had contracted the disease, which was not severe. The second case was notified on February 2nd, and the third on February 15th. Both in males aged 8 and 15 years, and both of the same family.

It was difficult to prove that these cases were infected from the first case, but this was probably so.

Necessary precautions were taken and no further case occurred until March 15th, when another case was notified from another part of Hoxne, in a female aged 30.

The case was very mild and a swab taken 4 days after the onset of the disease, gave negative results. No connection could be traced with the preceding cases.

Erysipelas.—There were five cases notified—none fatal.

Measles.—There have been widespread epidemics of this disease in your district during the year, resulting in the death of two children below school age at Stradbroke.

This school was closed comparatively early in the epidemic in the hope of checking the spread of the disease, which, however, became almost universal among the children of the parish. The parishes of Tannington, Worlingworth, Dennington, Monk Soham, Saxtead, Horham and others also suffered from extensive epidemics of this disease, no death was however certified as due to measles during the year from these parishes.

The disease is not notifiable, and at my suggestion your Council issued a circular to the masters of schools in the district asking them to let the Medical Officer of Health know of the first symptoms of Measles among the pupils, in order that prompt action might be taken.

Whooping Cough. — There have been extensive epidemics of this disease also in the district during the latter part of the year, especially in the parishes of

Weybread, Fressingfield, Stradbroke, Dennington, and Saxtead. One child under one year of age died at Fressingfield.

No cases were removed to the infectious hospital. So far as I can ascertain, no case has been treated in this hospital for many years. The building is not very suitable for use as an infectious hospital at present. Since there are so very few cases in the district in the year to go to this infectious hospital, it might be advantageous if some arrangement could be come to with adjoining sanitary areas, with a view to combining to support one efficient hospital for infectious cases. Such a hospital, to be efficient, must be ready at a moment's notice to receive patients, and the upkeep of such an institution would be considerably reduced per case treated if more patients were treated in it than could be supplied from this sanitary district alone.

Disinfectants, with directions for using them, and advice as to the necessity of isolation have been freely given, but the difficulties of enforcing an efficient quarantine among the poor at home are almost insuperable, and an efficient infectious hospital would be extremely useful in coping with any outbreak of infectious disease.

MARRIAGE RATE.—There were 60 marriages solemnized in the district during the year, giving a marriage rate of 5·8 per 1,000, a decrease of ·9 since last year.

MARRIAGE RATE TABLE.

Year.	No. of Marriages.	Rate per 1,000.
1902	71	6·9
1903	69	6·7
1904	60	5·8

Birth Rate.—There were 286 births registered in the district during the year, giving a rate of 27·9 per 1,000 for the whole area. In the Stradbroke Sub-district 135 births were registered—63 males and 72 females (6 illegitimate)—giving a rate of 25·9 per 1,000. In the Dennington Sub-district 151 births were registered—72 males and 79 females (8 illegitimate)—giving a rate of 30 per 1,000. The average yearly birth rate for the decade 1894-1903 is 26·3, or 0·2 less than for the previous decade.

Table showing birth rates since 1895 :—

Year.	Rate per 1,000.	Births Registered.
1895	24·9	286
1896	28·6	328
1897	28·7	329
1898	26·0	299
1899	25·1	288
1900	24·6	282
1901	24·2	248
1902	24·2	248
1903	24·5	251
1904	27·9	286

The birth rate this year is 1·5 per 1,000 higher than the average for the last 20 years.

Death Rates.—The total deaths belonging to the whole district numbered 163. Of these, 76 (42 males and 34 females) belong to the Stradbroke Sub-district, and 87 (45 males and 42 females) to the Dennington Sub-district. Included in these returns are 5 deaths occurring in the Eye Union Workhouse, and 3 deaths in the Melton Asylum.

The death rate for the year, as compared with 1903, is given in following table.

	1903.	1904.	
Stradbroke Sub-district	13·2	14·6	per 1,000
Dennington Sub-district	10·7	17·3	,,
Whole District	12·0	16·0	,,

The death rate for the whole district is 1·0 per 1,000 higher than the average for the last decade, 1894-1903, and shows a considerable rise since last year, when the rate was exceptionally low.

The Infant mortality rate.—This rate is calculated from the number of deaths in infants under one year of age, and is per 1,000 registered births.

	1903.	1904.
Stradbroke Sub-district	96·2	118·5
Dennington Sub-district	77·5	119·2
Whole District	87·6	118·8

Table showing infant mortality rate for whole district since 1899.

Year.	Rate per 1,000 births registered.
1899	107·6
1900	99·1
1901	88·7
1902	112·9
1903	87·6
1904	118·5

The infant mortality rate this year is therefore above the average of the last five years by 9·4. Premature birth and convulsions are responsible for 16 deaths, diseases of the respiratory organs for 9 deaths, whooping cough for 1, diarrhœa for 2, heart disease and other causes for 6 deaths.

Table showing Mortality from All Causes at Different Age Periods.

Age.	1903.					1904.				
	Stradbroke Sub-district.		Dennington Sub-district.			Stradbroke Sub-district.		Dennington Sub-district.		
	Males.	Females.	Males.	Females.	Total.	Males.	Females.	Males.	Females.	Total.
Under 1 year	10	3	6	3	22	8	8	8	10	34
1 year and under 5 years ...	0	0	2	1	3	4	0	4	2	10
5 years and under 15 years	1	1	1	0	3	2	0	1	0	3
15 years and under 25 years	3	4	2	1	10	0	0	1	0	1
25 years and under 65 years	9	10	7	5	31	11	12	10	11	44
65 years and upwards ...	13	15	15	11	54	16	15	22	18	71
	36	33	33	21	123	41	35	46	41	163

Table showing death rates for the whole district since 1895.

Year.	Rate per 1,000.	No. of deaths registered.
1895	16·3	187
1896	11·1	127
1897	14·8	170
1898	12·6	145
1899	15·6	179
1900	15·8	182
1901	14·6	150
1902	15·5	159
1903	12·0	123
1904	16·0	163

The following tables will show the Parish Mortality Rates, including Deaths of Residents registered without the district.

STRADBROKE SUB-DISTRICT.

		1903.		1904.	
Parish.	Population.	No. of Deaths.	Rate per 1000.	No. of Deaths.	Rate per 1000.
Metfield	437	5	11·2	13	29·7
Denham	192	2	10·4	3	15·6
Weybread	571	6	10·5	5	8·7
Mendham	531	6	11.3	6	17·5
Fressingfield	1,005	13	12·9	10	9·9
Wingfield	387	2	5·1	4	10·2
Hoxne	838	8	9·5	20	23·8
Stradbroke	1,016	24	23·6	14	13·7
Syleham	241	0	0	1	4·1

DENNINGTON SUB-DISTRICT.

Parish.	Population.	1903. No. of Deaths.	1903. Rate per 1000.	1904. No. of Deaths.	1904. Rate per 1000.
Horham	287	2	6·9	3	10·4
Southolt	126	1	7·9	4	31·7
Badingham	558	6	10·7	8	14·3
Dennington	652	10	15·3	14	21·4
Worlingworth	552	4	7·2	10	18·1
Wilby	331	3	9·0	7	21·1
Laxfield	827	5	6·0	13	15·7
Athelington	87	1	11·5	1	11·5
Saxtead	270	5	18·5	7	25·9
Bedingfield	297	4	13·4	4	13·4
Brundish	326	3	9·2	3	9·2
Monk Soham	244	7	28·6	5	20·5
Bedfield	317	2	6·3	4	12·5
Tannington	146	1	6·8	4	27·4

These death rates are calculated in such a small number of deaths that their statistical value is small.

Eight inquests were held in the Stradbroke Sub-district, on 4 males and 4 females; and 8 were held in the Dennington Sub-district, on 3 males and 5 females. Sixteen inquests for the whole district, compared with 10 last year. There were 3 uncertified deaths, 1 in Stradbroke and 2 in Dennington.

For mortality from different diseases, I would refer you to Table IV. in the appendix.

Through the kindness of Dr. Tate, I am able to append a Table of the Rainfall for the year, registered by him at Stradbroke.

Month.	No. of wet days.	Depth in inches.
January	15	1·78
February	16	2·54
March	14	2·24
April	5	0·72
May	11	2·04
June	6	0·77
July	8	2·65
August	7	1·59
September	7	1·48
October	7	0·99
November	4	0·75
December	9	2·03
Total		19·58

In conclusion, I beg to thank you gentlemen, for your support in helping me to carry out my duties, and my fellow officers for their kind help, always readily rendered.

I am, Gentlemen,

Your obedient Servant,

F. C. JAMES, M.B., D.P.H., etc.,

Medical Officer of Health.

FRESSINGFIELD,
August 12th, 1904.

MR. CHAIRMAN AND GENTLEMEN,

I have the honour to present to you the following report on the water supply of Fressingfield, as requested by your Council.

The Parish of Fressingfield, in the Rural District of Hoxne, comprises 4,500 acres, and measures about 3¼ miles from N. to S. and 3½ miles from E. to W.

The population at the last census was 1,005, a decrease of 81 since the previous census.

About half this population is housed in the village, and the rest in isolated farms and cottages, situated for the most part on or near the roads.

The occupation of the people is entirely agricultural.

The village is a somewhat straggling one, and stretches out along the Wingfield-Laxfield road for ¾-mile, and ½-mile along the Harleston road.

Most of the rest of the houses in the village are situated on two short roads joining the roads already mentioned.

The Church and churchyard are between these two short roads, which slope rather steeply up from the Harleston to the Wingfield-Laxfield road.

That part of the village on the Wingfield-Laxfield road, is for the most part as high as any of the surrounding country, while the Harleston-Metfield road here is low, and has during the winter months a considerable stream running immediately on its N.E. side, which finally empties into the Waveney.

During the summer months this stream is dry, and as it acts as a natural drain to the houses along this road, is apt to become foul in hot weather.

The surface geological formation of the parish is uniformly boulder clay, under which are met strata of sand and gravel at depths varying from 40 to probably over 100 feet; the surface being undulating and intersected by numerous shallow valleys.

These valleys during the winter months contain streams, which, however, generally dry up in the summer.

There are four deep wells in the village, two public and two private; the two latter belong to the Rectory and to Mr. Barber, and are situated close to the stream above mentioned.

I am given to understand that these are about 40 feet deep, and yield a constant supply of clear and palatable water.

The first of the public wells, called the lower well, is 40 feet deep, taps a layer of sand below the clay, and is of considerable age.

This well is situated by the Harleston road at the centre of three cross roads, about 15 yards from the stream, and a few feet above it.

The churchyard is about 20 feet above and 50 yards away, sloping towards the well. The water is raised by a pump, and the well is properly covered with a brick arch and stone, which is slightly above the road surface.

The brickwork of the well is old, without cement, and during wet weather I have seen water running down the sides of the well from within a few feet of the top.

This well yields a constant supply of water.

The water is slightly opalescent, and has no smell or taste.

I have carefully analysed it on two occasions—once in March last after a long spell of very wet weather, and again in August after a period of dry weather followed by heavy rain for a few days.

The first analysis gave—Water turbid, slightly yellow, no smell or taste, reaction faintly alkaline.

Free and saline ammonia ...	·005	Parts per 100·000
Albuminoid ammonia	·02	
Chlorine	5·8	
Oxygen absorbed in 2 hours at 80° F.	·16	
Oxidized nitrogen	1·5	
Nitrites certainly present.		
Sulphates marked.		
Hardness (total) mostly permanent	24	
Iron absent; no poisonous metals.		

—A large residue on evaporation, which on charring gave off an unpleasant smell.

The second analysis gave—Water fairly clear, very slightly opalescent, no taste or smell, reaction neutral.

Free and saline ammonia ...	·008	Parts per 100·000
Albuminoid ammonia	·036	
Chlorine	9	
Oxygen absorbed	·16	
Oxidized nitrogen	2·5	
Nitrites, a trace.		
Sulphates marked.		
Hardness (total)	28	
Iron and poisonous metals absent.		

—On evaporation, bulky residue, which chars and smells of burnt feathers.

It is difficult to account for these high figures of saline and albuminoid ammonia, of oxidized nitrogen, and the presence of nitrites without supposing that the water has been recently contaminated in some way with animal and vegetable matter, which may possibly have gained access to the well through the pervious brickwork and be supplied through some fault in the clay, from the polluted stream in the vicinity, or even from the churchyard above.

I do not think that road washings can get into the well.

The second well was sunk in 1887 by public subscription, as it was felt that a further public water supply was required by the people living in the higher parts of the village.

This well is 80 feet deep, and taps probably the same stratum of sand as the former.

It is situated at the junction of the Stradbroke, Wingfield, and Laxfield roads, and is nearly the highest point in the village, some 50 feet above the lower well; the ground water flowing presumably from the higher ground towards the stream

There is no visible source of contamination of the water of this well.

There is no water above it, and the few houses situated nearest it are some distance away, for the most part below it, and the clay is heavy and presumably impervious.

There was a complaint some years ago that road washings, &c., got into this well, but that is now, I think, impossible; it is properly arched over with brick and stone, and slightly above the road level.

The water is raised by a pump.

Owing, I believe to unfavourable reports on the water of this well by Dr. Kirby, the late M.O.H., it was decided in 1901 to deepen the well, and a contract was entered into with a well-sinker with that end in view.

A bore hole, 4 inches in diameter, was sunk 230 feet from the bottom of the present well. No water being reached and difficulties arising in further sinking a 4-inch tube, a 3-inch bore was continued and reached 83 feet into chalk, but no water was obtained.

I understand that the boring was then continued with a still smaller tube, and the contractor reported that at 386 feet he had obtained a good supply of water.

A new pump was fitted, and it was subsequently discovered that the water raised was the old well water admitted through holes in the bore tube.

These holes were then closed, and it appears that thereafter the supply of water was inadequate.

As to whether this bore tube yielded any considerable quantity of water or not I am unable to ascertain, the evidence being very conflicting.

Referring to Dr. Kirby's Annual Report for 1902, I find the following passage :—

> " After some months, water has at last been found at a depth of 386 feet from the surface at the deep boring of the Jubilee Well at Fressingfield.
>
> " The quality of this water is such as one would expect in a chalky deep well water, it is free from pollution, and is a first-class hard water.
>
> " A new pump is now being put down, a ladder fixed in the sides of the well, the well is to be domed over, and not left as a catchpit for surface washings of dirt, &c., and it is to be hoped that the successful undertaking will be a boon to the village."

In Dr. Kirby's Report for 1903 I find the following :—

> " The boon which I ventured to hope would accrue to the village of Fressingfield, and expressed on page 20 of my last year's report, has unfortunately not come up to my wishes.
>
> " That a bountiful supply has been struck I firmly believe ; that the means of raising it to the surface are inadequate, I also believe.

> "Since then the Fressingfield Parish Council, by means of voluntary subscriptions have cleaned out, deepened, put in a new vat and lengthened the suction pipe at the lower well.
>
> "The water is yet of a suspicious character, but will, I think, come alright eventually."

There seems, however, to have been some scarcity of water from the bore tube, as since then the water from the original well has been admitted, and thereafter the well has constantly provided a sufficient supply.

This bore tube and new pump cost the parish £240, levied as a special rate.

I analysed the water from this well in March of this year, and again in July.

The first sample was taken after a long period of rainy weather, and the second during very dry weather.

First analysis—Physical characters turbid and yellow, no smell, tastes of iron, reaction faintly alkaline.

Free and saline ammonia ...	·024	Parts per 100·000
Albuminoid ammonia	·006	
Chlorine	11	
Oxygen absorbed in 2 hours at 80° F.	·16	
Oxidized nitrogen	·02	
Nitrites absent.		
Sulphates marked.		
Hardness (total)	28	
Iron	1	
No poisonous metals.		

On evaporation, a bulky residue, scarcely charring, and giving off no smell.

The second analysis, during dry weather—Physical characters turbid and yellow, no smell, tastes of iron, reaction faintly alkaline.

Free and saline ammonia ...	·02	Parts per 100·000
Albuminoid ammonia	·016	
Chlorine	11	
Oxygen absorbed	·15	
Oxidized nitrogen not appreciable.		
Nitrites absent.		
Sulphates marked.		
Hardness (total)	30	
Iron	·2	
No poisonous metals.		

The very high figure of saline ammonia is probably accounted for by the reduction of nitrates, which are absent in the sample, to ammonia either by the long length of iron pipe, or by iron in the sand.

The albuminoid ammonia is distinctly higher than is usually allowable. The quantity of iron appears to vary greatly from time to time, sometimes being excessive and at others moderate in amount.

On analytical grounds this is a difficult water to decide upon —it would usually be classed as a suspicious water with excess of iron.

Having regard, however, to the apparent absence of sources and opportunities for contamination of the water, and that the iron rapidly separates out, and is deposited on standing, it is probably a potable water if the suspended matter is allowed to settle.

These two wells constitute the public supply of the village.

A considerable number of people living in the street known as the Gull, by the courtesy of Mr. Barber use the water from his well, which is within 100 yards of them.

The inhabitants of the eastern end of New street (Wingfield road), use the water from the Jubilee well, coming distances up to about 250 yards for it.

Others at this end of New street, by Mr. Etheridge's permission prefer to use the water from his pond.

This pond is never dry and provides a fairly clear water, free from smell.

The water in it is mostly surface water derived from meadows to the south of the pond, and the water could not be regarded as free from possibilities of contamination.

Some of the people from the western end of New street use the water from Mr. Algar's pump.

This water is conveyed from a roadside pond by a stone drain to a well, and thence to the pump.

The water is surface water into which road washings might find their way.

The inhabitants of the cottages on the Harleston road obtain water from the lower well, from which some of them are distant about 150 yards.

I have made a house to house inspection of the outlying cottages and farms in the parish to ascertain the nature of their water supply.

The farm houses almost without exception obtain water from ponds.

The water is usually conveyed by a stone drain to a well and thence raised by a pump inside the house.

These stone drains are usually filled with loose stones and gravel which act as a rough filter, and in some cases the water is filtered through charcoal or polarite before reaching the pump.

These filters unless frequently taken up and cleaned are a doubtful blessing, and in several cases water, which although somewhat turbid in the pond, was free from smell, after passing through the filter is offensive and unfit for use.

The ponds from which this water is derived are frequently situated in or near farm yards, sometimes used by the stock, the water is surface water from meadows, gardens, yards and roads.

In a few instances the water of these ponds was found to be offensive during hot weather ; but usually it is fairly clear and inodorous, being kept so probably by the water weeds, etc., which grow freely in all of them.

These farm houses, with the outbuildings, almost without exception have a large tiled roof area.

The rain water is utilized to a certain extent, commonly stored in small wooden barrels, and but little care is taken to keep these clean.

In a few instances galvanised iron tanks of suitable capacity and kept clean are found on these farms.

The rain water so collected is of excellent quality, and is by far the best and safest water obtainable.

The quantity available with such a large roof area, only depends on the storage capacity.

The outlying cottages derive their water also from ponds of surface water draining from gardens, fields, and roads.

Every cottage has such a pond quite close to it. but in several instances during hot, dry weather, these ponds either dry up or become so foul that the water is obviously unfit for use ; when the inhabitants have to go in a few cases as much as half-a-mile to get water from other ponds.

A few of these cottages are thatched, which makes the collection of good rain water a difficulty, but the vast majority have either slate or tiled roofs, with gutters and rain water pipes.

Small wooden barrels are used to collect the rain water in ; these are frequently not kept clean, and are quite inadequate in size. These general conditions as to water supply obtain in the majority of the parishes in the district, where the clay is thick and water a long way from the surface.

The water supply of Fressingfield being in no respect worse than that of the rural districts around.

The supply of water to the village of Fressingfield may be, I think, regarded as adequate in quantity, the wells being never dry, though the water is a considerable distance from some of the houses. Whether it is or is not within "a reasonable distance" it is impossible to decide until the law becomes less vague on the point.

The water of the Jubilee well is probably a safe one, but that of the lower well certainly of doubtful quality. If the walls of this well could be rendered impervious, so as to remove the suspicion that polluted water finds its way into the well, the water would then be, at least as good as the stratum of sand yields, and certainly better than the ponds of surface washings, which are the only other sources of supply except rain water from roofs.

The water supply of outlying farms and cottages is, with few exceptions, unsatisfactory. The sinking of wells for these farms and cottages, which would in many cases have to be over 100 ft. deep, and would then very possibly yield doubtful water, is impracticable, the cost being prohibitive.

The collection and storage of ample quantities of rain water for drinking purposes, from roofs, in galvanized iron tanks above ground, however, is comparatively easy and inexpensive. Such tanks are easily kept clean, and would provide a safe and wholesome supply of water, which could not well be specifically polluted, for those cottages and farms which are at present without a suitable supply.

With regard to the village:—

The search for good water some 400 feet deep in the chalk does not appear to be encouraging, judging from the results of the last attempt.

If at any time a further public supply should be felt to be needed, such might be obtained by the construction of a reservoir, fed by surface water from heavily-manured agricultural land.

This water might be rendered clear and palatable by filtration through polarite, but such a supply is obviously liable to become specifically polluted, and polarite filtration would not render it safe.

With a decreasing population, a better utilization of rain water for drinking purposes would probably be better.

Referring to the late M.O.H.'s annual reports for the parish of Fressingfield for the last three years, I find that in 1901 the death-rate was 15·9 per 1,000.

Diphtheria—One case, no death.
Enteric fever—No case.
Scarlet fever—No case.
Cholera—No case.
Diarrhœa—No deaths from.

In 1902, death-rate for parish 11·9.

Diphtheria—No case.
Enteric fever—3 cases, 3 deaths.
Scarlet fever—1 case, no death.
Cholera—No case.
Diarrhœa—No deaths from.

The first case of enteric fever was taken ill immediately on returning from South Africa (an obviously imported case). The other two cases were in the mother and sister-in-law of the first case, and infected directly from it. Disease did not spread further.

In 1903, death-rate for parish 12·9.

Diphtheria—No case.
Enteric fever—One case, no death.
Scarlet fever—No case.
Cholera—No case.
Diarrhœa—No deaths from.

This case of enteric was probably traceable to bad water, the source of infection of the water being obscure. The case occurred in a farm with the usual pond, stone drain, and pump. This gives an average death-rate for the three years for the parish from all causes, per 1,000 per annum, of 13·6.

	Case incidence per 1,000 per annum.	Death-rate per 1,000 per annum.
Diphtheria	·33	0
Scarlet fever	·33	0
Enteric fever	1·32	·99
Cholera	0	0
Diarrhœa	0	0

The death-rate for enteric fever is very high, which is accounted for by the exceedingly high case mortality, viz., 75 per cent.; but these cases were not, so far as can be ascertained, directly or indirectly due to defects in the water supply.

The only case probably traceable to this cause gave a case incidence of ·33 per 1,000 and a *nil* death-rate.

The death-rates from the other diseases which might be water-bourne was *nil*, and the case incidence very low.

To sum up: the water supply, especially of the outlying cottages and farms, is by no means ideal, and is practically the same as that of the surrounding districts.

Much improvement could be gradually brought about at small expense if, where it was found that a water supply to a house was inadequate or of bad quality, galvanized iron tanks of suitable capacity to store the rain water in were insisted on.

The duty of keeping these clean should devolve on the tenants, and they should be regularly inspected by the Sanitary Authority.

Where privies—which in several cases are mere holes in the ground—are found in proximity to water supplies, or in an unsatisfactory state, pail closets should be insisted on.

Pig styes and other similar sources of pollution, when found in situations where they are liable to drain into ponds used for household or drinking purposes, should be abolished or placed elsewhere.

My thanks are due to Dr. Kirby, from whose annual reports I have quoted considerably, and to Mr. Norton Garraid, who has supplied me with details of the recent boring operations at the Jubilee well.

I am, Gentlemen,
Your obedient Servant,
F. C. JAMES, M.B., D.P.H.,
M.O.H. Hoorne Rural District.

TABLES

Appended to the Annual Report of the Medical Officer of Health for the year 1904.

TABLE I.

HOXNE RURAL DISTRICT.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1904 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT	Deaths of Non-residents registerd in Public Institutions in the District.	Deaths of Residents registered in Public Institutns beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
				Under 1 Year of Age.		At all Ages.						
		Number.	Rate.*	Number.	Rate per 1.000 Births registered	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1894.	11161	325	28·3	36	110·7	190	16·5	—	—	15	205	17·8
1895.	11080	286	24·9	45	164·5	179	15·6	—	—	18	187	16·3
1896.	11461	328	28·6	22	67·0	121	10·05	—	—	7	128	11·1
1897.	11461	329	28·7	36	109·4	161	14·0	—	—	9	170	14·8
1898.	11461	299	26·0	22	73·5	—	—	—	—	—	145	12·6
1899.	11461	288	25·1	31	107·6	164	14·3	—	—	15	179	15·6
1900.	11461	282	24·6	28	99·1	169	14·7	—	—	13	182	15·8
1901.	10220	248	24·2	22	88·7	137	13·4	—	—	13	150	14·6
1902.	10220	248	24·2	28	112·9	147	14·3	—	—	12	159	15·5
1903.	10220	251	24·5	22	87·6	116	11·3	—	—	7	123	12·0
Averages for years 1894-1903	11020·6	288·4	25·9	29·2	102·1	—	—	—	—	—	162·8	14·6
1904.	10220	286	27·9	34	118·8	155	15·1	—	—	8	163	16

* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

NOTE.—The deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there: and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "Public Institutions" to be taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums. A list of the Institutions in respect of the deaths in which corrections have been made should be given on the back of this Table.

Area of District in acres (exclusive of area covered by water), 52,764.

Total population at all ages, 10,220.
Number of inhabited houses, 2,418.
Average number of persons per house, 4·2.
} At Census of 1901.

I. Institutions within the District receiving sick and infirm persons from outside the District.	II. nstitutions outside the District eceiving sick and infirm persons from the District.	III. Other Institutions, the deaths in which have been distributed among the several localities in the District.
	Eye Union Workhouse. Melton Asylum.	

Is the Union Workhouse within the District? No.

TABLE II.

HOXNE RURAL DISTRICT.

VITAL STATISTICS OF SEPARATE LOCALITIES IN 1904 AN PREVIOUS YEARS.

NAMES OF LOCALITIES.	1. WHOLE DISTRICT.				2. STRADBROKE SUB-DISTRICT.				3. DENNINGTON SUB-DISTRICT.				4.				5.				6.				7.			
YEAR.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1894	11161	326	205	36	6663	157	106	18	5498	168	84	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1895	11080	286	187	45	6630	151	94	29	5450	135	85	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1896	11461	328	128	22	5813	159	53	12	5648	169	63	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1897	11461	326	170	36	5813	179	83	22	6848	150	78	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1898	11461	299	145	22	6813	—	—	—	5648	—	—	—	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1899	11461	238	179	31	5813	155	93	20	5648	133	71	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1900	11461	282	182	28	6813	149	104	12	6648	133	78	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1901	10220	248	150	22	5200	120	76	15	6020	128	74	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1902	10220	248	159	28	5200	115	78	11	5020	133	81	17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1903	10220	251	123	22	6200	135	69	13	5020	116	54	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Averages of Years 1894 to 1903	11020	288·4	162·8	29·2	5595	—	—	—	5424	—	—	—	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1904	10220	286	163	34	5200	135	76	16	5020	151	87	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

NOTES.—(*a*) The separate localities adopted for this table should be areas of which the populations are obtainable from the census returns, such as wards, parishes or groups of parishes, or registration sub-districts. Block 1 may, if desired, be used for the whole district; and blocks 2, 3, &c., for the several localities. In small districts without recognised divisions of known population this Table need not be filled up.

(*b*) Deaths of residents occurring in public institutions beyond the district are to be included in sub-columns *c* of this Table, and those of non- residents registered in public institutions in the district excluded. (See note on Table I. as to meaning of terms "resident" and "non-resident.")

(*c*) Deaths of residents occurring in public institutions, whether within or without the district, are to be allotted to the respective localities according to the addresses of the deceased.

(*d*) Care should be taken that the gross totals of the several columns in this Table respectively equal the corresponding totals for the whole districts in Tables I. and IV.: thus, the totals of sub-columns *a*, *b*, and *c* should agree with the figures for the year in the columns 2, 3, and 12 respectively of Table I.; the gross total of the sub-columns *c* should agree with the total of column 2 in Table IV., and the gross total of sub-columns *d* with the total of column 3 in Table IV.

TABLE III.

HOXNE RURAL DISTRICT.

Cases of Infectious Disease notified during the Year 1904.

Notifiable Disease.	Cases notified in Whole District.							Total Cases notified in each Locality.							No. of Cases removed to Hospital from each Locality.						
	At all Ages.	At Ages†—Years.						1	2	3 H Strad-broke Sub-District.	4	5 Denning-ton Sub-District.	6	7	1	2	3	4	5	6	7
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.														
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	4	—	—	3	—	1	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—
Membranous croup ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	5	—	—	—	—	4	1	—	—	3	—	2	—	—	—	—	—	—	—	—	—
Scarlet fever	2	—	—	1	1	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
Typhus fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric fever	3	—	—	—	1	2	—	—	—	2	—	1	—	—	—	—	—	—	—	—	—
Relapsing fever ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Continued fever ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal fever ..		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
*										—	—	—	—		—	—	—	—	—	—	—
Totals	14	—	—	4	2	7	1	—	—	10	—	4	—	—	—	—	—	—	—	—	—

Notes.—The localities adopted for this table should be the same as those in Tables II. and IV.

State in space below the name of the isolation hospital, if any, to which residents in the district, suffering from infectious disease, are usually sent. Mark (H) the locality in which it is situated, or if not within the district, state where it is situated, and in what district. Mark (W) the locality in which a workhouse is situated.

* This space may be used for record of other diseases the notification (compulsory or voluntary) of which is in force in the district.

† These age columns for notifications should be filled up in all cases where the Medical Officer of Health, by inquiry or otherwise, has obtained the necessary information.

Isolation Hospital at Stradbroke.—No cases removed to.

TABLE IV.

HOXNE RURAL DISTRICT.

Causes of, and Ages at, Death during Year 1904.

Causes of Death.	Deaths in or belonging to whole District at subjoined Ages.							Deaths in or belonging to Localities (at all ages).							Total Deaths in Public Institutions in the District
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.		Stradbroke Sub-District.		Dennington Sub-District.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Small Pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	2	—	2	—	—	—	—	—	—	—	2	—	—	—	—
Scarlet fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping-cough ..	1	1	—	—	—	—	—	—	1	—	—	—	—	—	—
Diphtheria and membranous croup ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Croup	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fever { Typhus ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fever { Enteric ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fever { Other continued	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Epidemic influenza ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diarrhœa	2	2	—	—	—	—	—	—	1	—	1	—	—	—	—
Enteritis..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal fever.. ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other septic diseases ..	3	—	—	1	—	—	2	—	1	—	2	—	—	—	—
Phthisis	4	—	—	—	—	4	—	—	2	—	2	—	—	—	—
Other tubercular diseases	5	—	1	—	—	4	—	—	5	—	—	—	—	—	—
Cancer, malignant disease	18	—	—	—	—	8	10	—	8	—	10	—	—	—	—
Bronchitis	12	4	2	—	—	—	6	—	6	—	6	—	—	—	—
Pneumonia ..	11	3	2	—	1	2	3	—	5	—	6	—	—	—	—
Pleurisy	1	—	—	—	—	1	—	—	—	—	1	—	—	—	—
Other diseases of Respiratory organs ..	3	2	—	—	—	1	—	—	1	—	2	—	—	—	—
Alcoholism } Cirrhosis of liver } ..	2	—	—	—	—	—	2	—	1	—	1	—	—	—	—
Venereal diseases ..	1	—	1	—	—	—	—	—	1	—	—	—	—	—	—
Premature birth ..	10	10	—	—	—	—	—	—	4	—	6	—	—	—	—
Diseases and accidents of parturition ..	2	—	—	—	—	2	—	—	1	—	1	—	—	—	—
Heart diseases	18	2	—	—	—	5	11	—	11	—	7	—	—	—	—
Accidents	5	—	—	—	—	3	2	—	4	—	1	—	—	—	—
Suicides	2	—	—	—	—	2	—	—	1	—	1	—	—	—	—
Apoplexy	2	—	—	—	—	1	1	—	1	—	1	—	—	—	—
Senility	21	—	—	—	—	—	21	—	8	—	13	—	—	—	—
Convulsions	7	6	1	—	—	—	—	—	3	—	4	—	—	—	—
Acute Rheumatism ..	1	—	—	1	—	—	—	—	1	—	—	—	—	—	—
....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
All other causes ..	30	4	1	1	—	11	13	—	10	—	20	—	—	—	—
All causes	163	34	10	3	1	44	71	—	76	—	87	—	—	—	—

Notes.—(*a*) In this Table all deaths of "Residents" occurring in public institutions, whether within or without the district, are to be included with the other deaths in the columns for the several age groups (columns 2—8). They are also in columns 9 - 15, to be included among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-residents" occurring in public institutions in the district are in like manner to be excluded from columns 2—8 and 9—15 of this Table.

(*b*) See note on Table I. as to the meaning of "Residents" and "Non-residents," and as to the "Public Institutions" to be taken into account for the purposes of these Tables. The "Localities" should be the same as those in Tables II. and III.

(*c*) All deaths occurring in public institutions situated within the district, whether of "Residents" or of "Non-residents," are, in addition to be dealt with as in note (a), to be entered in the last column of this Table. The total number in this column should equal the figures for the year in column 9, Table I.

(*d*) The total deaths in the several "Localities" in columns 9—15 of this Table should equal those for the year in the same localities in Table II., sub-columns *c*. The total deaths at all ages in column 2 of this Table should equal the gross total of columns 9—15, and the figures for the year in column 12 of Table I.

(*e*) Under the heading of "Diarrhœa" are to be included deaths certified as from diarrhœa, alone or in combination with some other cause of ill-defined nature; and also deaths certified as from

Epidemic enteritis;
Zymotic enteritis;

TABLE V.

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES AND HOMEWORK, 1904.

1.—INSPECTION.

Including Inspections made by Sanitary Inspector.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries)	2	0	0
Workshops (including Workshop Laundries)	0	0	0
Workplaces	10	0	0
Homeworkers' Premises	0	0	0
Total	12	0	0

2.—DEFECTS FOUND.

Nuisances under Public Health Acts	
Other Nuisances	0

3.—OTHER MATTERS.

No Workshops on Register. One Factory at Syleham, and five Bakehouses (retail).